



## Texas Department of Agriculture

TODD STAPLES, COMMISSIONER

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### FREQUENTLY ASKED QUESTIONS CITRUS GREENING QUARANTINE

#### Q. HOW DO I RECOGNIZE OR LOOK FOR CITRUS GREENING?

A. Citrus greening or huanglongbing (HLB) is one of the most serious citrus diseases in the world. Trees infected with the disease produce bitter, misshapen, unmarketable and irregularly-colored fruit. The most easily recognized symptom of citrus greening is the small, misshapen green fruit it causes. There are other symptoms, including yellow or blotchy leaves, thinning of leaves or twig dieback.

#### Q. WHAT IS ASIAN CITRUS PSYLLID AND HOW IS CITRUS GREENING SPREAD?

A. The disease is caused by a bacterium, *Candidatus Liberibacter asiaticus*. Citrus greening is transmitted by aphid-sized 1/6-18 inch long insect called Asian citrus psyllid or ACP (*Diaphorina citri* Kuwayama). Citrus psyllid feeds on new leaf growth with young stems (flush), resulting in twisted, curled leaves. The young psyllids (nymphs) suck sap from plant tissue and excrete a large quantity of honeydew attractive to ants. They also produce visible waxy tubules, which are unique, and are used to identify ACP.

#### Q. WHAT ARE THE HOST PLANTS OF CITRUS GREENING?

A. Nearly all citrus species and many citrus relatives (e.g., calamondin, box orange, curry leaf, orange jasmine, limeberry, etc.) are susceptible to citrus greening. Sweet oranges and mandarin oranges are highly susceptible to the disease; sour oranges, grapefruits and lemons are moderately susceptible. Greening-susceptible citrus plants may serve as reservoirs for citrus greening disease. All citrus plant species are potential hosts for ACP.

#### Q. IS THE FRUIT SAFE TO EAT?

A. Yes. The fruit from the infected trees are safe to eat. The disease poses no threat to human health though it does make the fruit misshapen, irregularly colored, and bitter.

#### Q. HOW IS THE DISEASE SPREAD?

A. Citrus greening is spread primarily by aphid-sized insect called Asian citrus psyllid (*Diaphorina citri* Kuwayama). This invasive pest transmits the disease to citrus trees and other host plants when it feeds on new leafy growth with young stems (flush), resulting in twisted, curled leaves. When the insect feeds on an infected tree, it becomes a carrier or vector, spreading the disease from one tree to another. Vector control by efficient and effective chemical sprays, the use of natural enemies to the vector, and the use of HLB-free budwood for plant propagation are extremely important. Citrus greening can also be transmitted by grafting diseased budwood. Although the citrus greening is caused by a bacterium, *Candidatus Liberibacter asiaticus*, the disease does not spread by casual contamination of personnel and tools or by wind and rain.

#### Q. CAN CITRUS PLANTS BE MOVED FROM THE QUARANTINED AREA?

A. Transportation of citrus plants into or out of the quarantined areas is strictly prohibited, except as permitted by TDA.

## **Q. WHERE IS THE CURRENT CITRUS GREENING QUARANTINED AREA?**

**A.** Up-to-date descriptions of quarantine areas, plus maps and other information are available at <http://www.TexasAgriculture.gov>, or you may contact the Texas Department of Agriculture (TDA) Gulf Coast Regional Office, 5425 Polk Street, Suite G-20, Houston, Texas, 77023, phone (713) 921-8200.

To determine whether you are inside the quarantined area, go to the map (use link below) and enter your address in the box (Enter a location) to the right of the large bold-print:

<https://mapsengine.google.com/16733486912059237704-05279445680642127559-4/mapview/?authuser=0>.

Further information on citrus greening can be found at <http://www.saveourcitrus.org/>.

## **Q. WHAT IS THE RISK OF KEEPING A TREE THAT IS KNOWN TO BE INFECTED?**

**A.** If you have an infected tree you run the risk of spreading citrus greening to healthy trees. HLB can kill a citrus tree in as little as five years, and there is no known cure. The only way to protect trees is to prevent spread of the HLB pathogen in the first place, by controlling psyllid populations and removing and destroying any infected trees. Detecting infected trees is difficult since it takes one to two years for symptoms of HLB to show up on the tree.

## **Q. WHAT CAN BE DONE TO HELP PREVENT THE SPREAD OF CITRUS GREENING?**

**A.** Citrus tree owners are encouraged to “Learn, Check, Report” suspected citrus diseases. Residential growers can learn about the diseases on the Save Our Citrus website ([www.saveourcitrus.org](http://www.saveourcitrus.org)) and from the Texas Department of Agriculture website [www.TexasAgriculture.gov](http://www.TexasAgriculture.gov). Check citrus plants regularly for signs of disease. Anyone can report suspicious symptoms through the Save Our Citrus Website. Residents can also call the Texas Department of Agriculture toll free at 1-800- TELL-TDA (1-800-835-5832) or the TDA Gulf Coast Regional Office in Houston at (713) 921-8200.

## **RETAIL SALES, NURSERIES, ETC.**

Before selling citrus plants inside the quarantined area, please contact the TDA Gulf Coast Regional Office in Houston at (713) 921-8200. A nursery must obtain a compliance agreement from TDA to sell citrus trees to anyone.

## **RESIDENTIAL CITRUS TREES:**

- Inspect citrus plants regularly for disease and insects.
- If you suspect a plant is infected, report it immediately to TDA or USDA.
- Control ACP populations using AgriLife Extension recommended management practices.

## **CITRUS PRODUCERS:**

Please contact the TDA Gulf Coast Regional Office in Houston at (713) 921-8200 to obtain information on specific conditions and requirements for producing citrus fruit inside the quarantined area.

## **ADDITIONAL RESOURCES:**

The following sites provide additional information on the citrus quarantines, management options for mitigating the vector pest, symptoms of an infected tree and contacts.

- [Texas Department of Agriculture - Citrus Greening: http://www.texasagriculture.gov/RegulatoryPrograms/PlantQuality/PestandDiseaseAlerts/CitrusGreening.asp](http://www.texasagriculture.gov/RegulatoryPrograms/PlantQuality/PestandDiseaseAlerts/CitrusGreening.asp)
- [USDA - APHIS: Citrus Greening: www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/citrus\\_greening/index.shtml](http://www.aphis.usda.gov/plant_health/plant_pest_info/citrus_greening/index.shtml)
- [Texas Citrus Greening: www.texascitrusgreening.org](http://www.texascitrusgreening.org)
- [Save Our Citrus: www.saveourcitrus.org](http://www.saveourcitrus.org)
- [Texas A&M University Kingsville Citrus Center - Weslaco, Texas: http://kcc-weslaco.tamu.edu/](http://kcc-weslaco.tamu.edu/)
- [Texas Plant Disease Diagnostic Clinic: http://plantclinic.tamu.edu](http://plantclinic.tamu.edu)
- [Texas A&M AgriLife Extension – Harris County: http://harris.agrilife.org/](http://harris.agrilife.org/)

For additional information on the Texas Citrus Greening quarantine requirements, citrus greening management options and other related resources, visit TDA's website at [www.TexasAgriculture.gov](http://www.TexasAgriculture.gov).